

Independent rates and rules for rating Equipment Breakdown Coverage

1. Description

The Equipment Breakdown Endorsement provides coverage for fortuitous mechanical breakdown of pressure, mechanical and electrical equipment.

2. Form

Refer to the Company to determine the applicable Equipment Breakdown Coverage Endorsement to be used with various Property forms.

3. Eligibility

Any risk eligible for Commercial Property is eligible for Equipment Breakdown coverage.

4. Rules

If this coverage applies, attach the endorsement to the policy and charge an additional premium as determined in Step 5. below.

5. Premium Determination

A premium charge is required for each Location where coverage applies.

Rate each location separately (See exceptions in rule f.).

a. Property Damage (PD) Premium

- (1) Determine the average 100% Insurable Value for the eligible occupancy where the Equipment Breakdown coverage will apply (Also see rule f.).
Follow the definitions of TIV in the table below.

Definitions of Insurable Value

Owner, Owner Occupied

100% Building + Contents (Excluding Stock) Replacement Value for all covered buildings & contents at a Location.

Owner, Not Owner Occupied

100% Building Replacement Value for all covered buildings at a Location.

Tenant

100% Contents (Excluding Stock) Replacement Value

Note: A tenant renting an entire building and who is responsible for the building equipment (Heating, A/C, Electrical) is to be rated the same as an "Owner, Owner Occupied"

Farmowners

100% Coverage A + Coverage E Limits

- (2) (a) Determine the Rating Group ID (see below). Multiply the rate that corresponds with the value calculated above. Multiply the rate by the value in 100's. For values not shown, use the formula as illustrated below.

Rating ID	Description
A1	Buildings, Offices, Retail Sales & Services, etc.
A2	Places of Public Assembly, Hotels/Motels, Stores with Refrigeration, etc.
B	Commercial Printing, etc.
C1	Healthcare (Not including Hospitals), etc.
C2	Healthcare (Including Hospitals and Diagnostic Services), etc.
D	Food Processing and Storage, etc.
E	Metals & Electronics Manufacturing, etc.
F	Textiles, etc.
G	Rubber & Plastics, etc. Light
H	Manufacturing, etc. General
I	Utility Services, etc.

Table A

Rating ID		A1		A2		B		C1		C2		D	
Formula Constants		C	e	C	e	C	e	C	e	C	e	C	e
		10.026	0.752	11.309	0.752	8.941	0.530	6.580	0.650	8.615	0.650	8.110	0.607
Insurable Value		Rate	Prem	Rate	Prem	Rate	Prem	Rate	Prem	Rate	Prem	Rate	Prem
\$100,000		\$0.3135	\$314	\$0.3536	\$354	\$0.7787	\$779	\$0.3298	\$330	\$0.4318	\$432	\$0.4955	\$495
\$200,000		\$0.1861	\$372	\$0.2099	\$420	\$0.5393	\$1,079	\$0.2102	\$420	\$0.2752	\$550	\$0.3253	\$651
\$400,000		\$0.1105	\$442	\$0.1246	\$498	\$0.3735	\$1,494	\$0.1339	\$536	\$0.1754	\$701	\$0.2136	\$854
\$500,000		\$0.0934	\$467	\$0.1054	\$527	\$0.3318	\$1,659	\$0.1159	\$579	\$0.1517	\$758	\$0.1865	\$933
\$600,000		\$0.0814	\$489	\$0.0918	\$551	\$0.3013	\$1,808	\$0.1029	\$617	\$0.1347	\$808	\$0.1670	\$1,002
\$800,000		\$0.0656	\$525	\$0.0740	\$592	\$0.2587	\$2,069	\$0.0854	\$683	\$0.1117	\$894	\$0.1402	\$1,122
\$1,000,000		\$0.0554	\$554	\$0.0625	\$625	\$0.2298	\$2,298	\$0.0738	\$738	\$0.0967	\$967	\$0.1225	\$1,225
\$2,000,000		\$0.0329	\$658	\$0.0371	\$742	\$0.1592	\$3,183	\$0.0471	\$941	\$0.0616	\$1,232	\$0.0804	\$1,608
\$3,000,000		\$0.0243	\$728	\$0.0274	\$821	\$0.1284	\$3,852	\$0.0361	\$1,084	\$0.0473	\$1,420	\$0.0629	\$1,886
\$4,000,000		\$0.0195	\$781	\$0.0220	\$881	\$0.1102	\$4,409	\$0.0300	\$1,199	\$0.0393	\$1,570	\$0.0528	\$2,112
\$5,000,000		\$0.0165	\$826	\$0.0186	\$931	\$0.0979	\$4,897	\$0.0259	\$1,297	\$0.0340	\$1,698	\$0.0461	\$2,305
\$10,000,000		\$0.0098	\$980	\$0.0111	\$1,106	\$0.0678	\$6,782	\$0.0165	\$1,653	\$0.0216	\$2,164	\$0.0303	\$3,027
\$20,000,000		\$0.0058	\$1,164	\$0.0066	\$1,313	\$0.0470	\$9,394	\$0.0105	\$2,107	\$0.0138	\$2,758	\$0.0199	\$3,975
> \$20,000,000		\$0.0058	*	\$0.0066	*	\$0.0470	*	\$0.0105	*	\$0.0138	*	\$0.0199	*

* Premium is dependent on the insurable value

Table A (continued)											
Rating ID		E		F		G		H		I	
Formula Constants		C	e	C	e	C	e	C	e	C	e
		6.461	0.571	2.361	0.462	28.425	0.664	4.355	0.534	5.915	0.550
	Insurable Value	Rate	Prem	Rate	Prem	Rate	Prem	Rate	Prem	Rate	Prem
	\$100,000	\$0.4659	\$466	\$0.2817	\$282	\$1.3357	\$1,336	\$0.3724	\$372	\$0.4698	\$470
	\$200,000	\$0.3136	\$627	\$0.2045	\$409	\$0.8430	\$1,686	\$0.2572	\$514	\$0.3209	\$642
	\$400,000	\$0.2111	\$844	\$0.1485	\$594	\$0.5320	\$2,128	\$0.1776	\$710	\$0.2192	\$877
	\$500,000	\$0.1859	\$929	\$0.1340	\$670	\$0.4588	\$2,294	\$0.1577	\$788	\$0.1939	\$969
	\$600,000	\$0.1675	\$1,005	\$0.1232	\$739	\$0.4064	\$2,439	\$0.1430	\$858	\$0.1754	\$1,052
	\$800,000	\$0.1421	\$1,137	\$0.1079	\$863	\$0.3358	\$2,686	\$0.1227	\$981	\$0.1497	\$1,198
	\$1,000,000	\$0.1251	\$1,251	\$0.0973	\$973	\$0.2895	\$2,895	\$0.1089	\$1,089	\$0.1324	\$1,324
	\$2,000,000	\$0.0842	\$1,684	\$0.0707	\$1,413	\$0.1827	\$3,655	\$0.0752	\$1,504	\$0.0904	\$1,809
	\$3,000,000	\$0.0668	\$2,004	\$0.0586	\$1,758	\$0.1396	\$4,188	\$0.0606	\$1,817	\$0.0724	\$2,171
	\$4,000,000	\$0.0567	\$2,268	\$0.0513	\$2,052	\$0.1153	\$4,613	\$0.0519	\$2,077	\$0.0618	\$2,471
	\$5,000,000	\$0.0499	\$2,496	\$0.0463	\$2,314	\$0.0994	\$4,972	\$0.0461	\$2,305	\$0.0546	\$2,732
	\$10,000,000	\$0.0336	\$3,360	\$0.0336	\$3,361	\$0.0628	\$6,276	\$0.0318	\$3,184	\$0.0373	\$3,732
	\$20,000,000	\$0.0226	\$4,523	\$0.0244	\$4,881	\$0.0396	\$7,922	\$0.0220	\$4,398	\$0.0255	\$5,098
	> \$20,000,000	\$0.0226	*	\$0.0244	*	\$0.0396	*	\$0.0220	*	\$0.0255	*

* Premium is dependent on the insurable value

To determine the rate for intermediate values, apply the following calculation:

$$=C/(V/1000)^e \quad \text{Where V is the insurable value.}$$

Example: Rating ID A1
V: \$400,000 \$0.1105 = $10.026 / (400000/1000)^{0.752}$
C: 10.026 \$442 = $\$400,000/100 \times 0.1105$
e: 0.752

(b) Actual Cash Value

If the valuation of loss is on an Actual Cash Value basis, multiply the base premium from (2)(a) by a factor of 0.870.

(3) Inspection and LAE Expense Modification

The Base Premium determined in Step (2) includes average countrywide charges for Inspection and Loss Adjustment Expense (LAE). The amount charged for these activities may be adjusted using the following steps. If no adjustment is being made, use the Base Premium from Step (2) and proceed to Step (4).

- Using the applicable state's rules governing certificate object inspections, calculate the annual average cost to inspect all policy locations for jurisdictional requirements. Add to this any annual cost expected for loss control activities and for LAE.
- Divide the Base Premium from Step (2) by a factor of 5.85 to obtain the Loss Dollars to be used in the calculation of the adjusted Base Premium. Add the dollar amount determined in Step (a) above to those Loss Dollars. Multiply the total dollars by a factor of 2.056 to determine the Base Premium including the adjusted inspection and LAE Expense.

(4) Equipment Modification

The base Premium includes loss content for all general types of equipment used in building operating systems. The premium may be modified to reflect absence of certain types of equipment or additional equipment not contemplated in the rates.

- Select the Equipment Modification (EM) factor(s) for all applicable items.

EM Factors	Equipment / Conditions
0.150	Risk has diagnostic equipment
(0.240)	Risk does not have any steam or hot water boilers
0.200	Risk uses steam for processing
0.500	Risk has printers with more than 3 color capability
0.100	Risk has products in refrigerated storage
(0.150)	Risk does not have any A/C > 50 hp
(0.350)	Risk does not have any A/C equipment
(0.050)	Risk does not have any owned transformers
0.200	Presses greater than 250 but no larger than 500 tons
0.400	Presses greater than 500 tons

- Add all EM Factors together and add to 1.000 to create a factor to modify the premium. Multiply the premium from Step (3) by this factor.

(5) Optional PD Deductibles

The base rates contemplate a deductible of \$500.

- If a deductible other than \$500 is desired, select the applicable Deductible Factor from Table B.

Table B

(b) Multiply the adjusted premium from Step (4) above by the Deductible Factor.

(6) Optional Sublimits

The base rates contemplate up to \$25,000 of coverage at no charge for the following sublimited coverages. The sublimit(s) may be increased to one of the optional limits shown. Only the sublimit values shown may be used.

Sublimit *	Expediting Expenses	Spoilage		Hazardous Substances	Data Restoration
		A	B		
\$50,000	0.9	0.6	3.2	0.9	2.5
\$75,000	1.5	1.0	5.0	1.5	4.0
\$100,000	1.9	1.2	6.2	1.9	5.0
\$250,000	3.1	2.0	10.4	3.1	8.4
\$500,000	4.1	2.8	13.6	4.1	10.9
\$1,000,000	5.0	3.4	16.6	5.0	13.4

A - Risks that have minimal amount of Spoilage in storage but desire higher sublimit anyway.

B - Risks that have perishable goods in storage, process, or being manufactured with value usually equal to or greater than the sublimit.

* If the limit is indicated as "Included" or "Policy Limit", rate using the Equipment Breakdown limit.

If a PD deductible for a sublimited coverage is different than the policy PD deductible, multiply the applicable sublimit coverage percentage from the table above by a Factor equal to (Table B factor for the optional sublimit deductible / Table B policy deductible factor). If the deductible is being specified as a % of loss subject to a minimum, use the minimum to adjust the factor as described above. Use that adjusted percentage in the creation of the final sublimit factor below.

If a sublimit higher than \$25,000 applies for a sublimited coverage, determine the percentage charge for the applicable coverage and sublimit from the table above. Add all such percentages together, convert to decimal form and add to 1.000 to create a factor to modify the premium. Multiply the premium from Step (5) by this factor.

b. Business Income (BI), Extra Expense (EE) and Service Interruption (SI) Coverages

(1) Both Business Income and Extra Expense Coverages Being Provided

(a) Determine the 100% Annual BI value for the Locations rated for PD above.

(b) Base Rate

The base rates contemplate both BI, EE and SI coverages. Determine the Base Rate from the following table. Use the same Eligibility Table used to enter Table A in Rule 5.b..

Rating Group ID	A1 & A2	B	C1 & C2	D	E	F	G	H	I
Base Rate	\$0.052	\$0.087	\$0.039	\$0.110	\$0.084	\$0.126	\$0.155	\$0.100	\$0.132

(c) Base Premium

Multiply the 100% Annual BI Value, in 100s, times the Base Rate selected in Step (b) above to obtain the Base Premium.

(d) Equipment Modification

Multiply the Base Premium from Step (c) by the Equipment Modification Factor used in Step a.(4) (b).

(e) Deductible

The Base Premium contemplates a deductible of 12 Hours (1/2) Day. If an optional deductible applies, multiply the premium from Step (d) by the applicable factor from Table C below.

Table C

BI/EE Deductible Factors			
Days	Factor	Days	Factor
1	0.968	6	0.817
2	0.920	7	0.801
3	0.885	8	0.788
4	0.857	9	0.776
5	0.835	10	0.765

(f) Exposure Factor

Percent of Exposure is the percentage of the total business that will be affected by an accident to key equipment. Multiply the premium from step (e) by this factor. For intermediate percentages, us the next lower value.

Percent of Exposure	Exposure Factor
100	1.000
90	0.932
80	0.857
70	0.800
50	0.643
35	0.513
25	0.411
20	0.357
15	0.300
10	0.243
5	0.164

(2) Business Income Coverage Only

Calculate the premium using Rule b.(1). Multiply the premium obtained by a factor of 0.909 to remove the 10% charge included for Extra Expense.

(3) Service Interruption (SI)

SI coverage is included. If it does not apply, multiply the premium from Steps (1) or (2) respectively by a factor of 0.870. This is the final BI plus EE or BI Only Premium.

(4) Extra Expense (EE) Coverage Only

- (a) Determine the Extra Expense Limit that applies.
- (b) Calculate a BI plus EE premium using Rule b.(1). Use the EE Limit in 100s in Step b.(1)(c) instead of the 100% Annual BI Value. Multiply the premium obtained by a factor of 0.909 to remove the 10% incremental charge for the EE coverage contained in the combined coverage.
- (c) Multiply the Premium from Step (b) by a factor of 0.870 to remove the charge for SI.
- (d) Multiply the premium from Step (c) by a factor of 0.750 to obtain the final EE premium .

c. Risk Modification

		Range of Modifications	
Evaluate the risk being rated in accordance with the following criteria:		Credits	Debits
a. Age of equipment		10%	to 10%
b. Protection (Sheltering and Protective devices)		10%	to 10%
c. Maintenance of Equipment (preventive, testing, record keeping)		10%	to 10%
d. Accessibility (location of) and ease of repairing / replacing equipment		10%	to 10%
e. Condition of equipment (environment, housekeeping)		10%	to 10%
f. Unique situations (prototype, obsolete, foreign mfg., local availability of parts)		10%	to 10%
Total debit or credit cannot exceed 25%.			

Note: DO NOT apply any other IRPM or schedule rating plan factors to premiums developed under these rules.

Risk Modification Premium Factor = 1.000 + Total Debit or Credit in decimal form

Add the PD Premium from Step a. and the BI/EE, BI only or EE only Premium from Step b. together.
Multiply that total premium by the Risk Modification Factor determined above.

d. Multi-Location Discount Factors

Multiply the premium from Step c. above by the applicable multi-location discount factor from the table below. "No. Locations" means number of Locations on an individual policy. The definition of a location is a physical address. This is the final Equipment Breakdown Premium.

No. Locations to be rated	Factor
1-3	1.000
4-10	0.920
11-20	0.850
>20	0.750

e. Package Policy Credit Included

Do not include these premiums when applying package credits for other coverage parts.

f. Optional Methods for Simplified Rating

The rating for a single risk with multiple locations or multiple risks that have the same rating group, coverage and risk exposure characteristics may be simplified by one of the following methods.

(1) Average Rate per \$100 of Value

Use one of the representative locations and calculate the premium using Steps a. through e. above. Divide that premium by the location TIV plus the BI value, if applicable, both in 100s. Use this average rate times the applicable value for other locations to determine their Equipment Breakdown premium.

(2) Factor of Property Premium

Use one of the representative locations and calculate the premium using Steps a. through e. above. Divide that premium by the corresponding Commercial Property coverage premium. Use that factor times the Property premium for other locations to determine their Equipment Breakdown premium.

(3) Factor of Package Policy Premium

Use one of the representative locations and calculate the premium using Steps a. through e. above. Divide that premium by the corresponding Commercial Package Policy premium. Use that factor times the Package Policy premium for other locations to determine their Equipment Breakdown Premium.

(4) Flat Charge

Use one of the representative locations to calculate the premium using Steps a. through e. above. Use the premium calculated to determine the Equipment Breakdown premium for each location.

Any premiums calculated using rule f. must be recalculated annually and applied uniformly to all locations. Multiply the premiums resulting from this rule by a factor of .65 as the last step prior to rounding.

g. Individual Risk Situations

Refer to company for rating or classifying any risk or exposure for which:

- (1)** The manual company rate or applicable classification is clearly demonstrated to be inappropriate because of a unique or unusual feature of the risk;

Note: To the extent that consent-to-rate procedures apply, they must be followed.

- (2)** The coverage to be written is broader than contained in the applicable standard coverage.

Note: To the extent that forms filing requirements apply, they must be followed.

- (3)** Rating or classifying any risk or exposure for which there is no manual rate or applicable classification. Rate shall not be inadequate, excessive or unfairly discriminatory.

Companies should maintain complete files, including all details of the factors used in determining the rate or classification for a particular risk and make these files available for a state regulator. When a company has developed or prepared a manual or schedule of rates which includes a classification applicable to a risk being written, the applicable filing requirements must be followed.